



Connectivity for Educator Development
(ConnectED)

QUARTERLY REPORT

(January, February, March)

April 2004

1.1 BACKGROUND INFORMATION

Connect-ED is one of the several programs that fall under the Education for Development and Democracy Initiative (EDDI) that was launched by former President Bill Clinton in March 1998. Connect-ED aims to improve the quality of primary education by:

- Providing teacher training in computer skills;
- Providing Connectivity to Kyambogo University (KYU) and Primary Teachers' Colleges (PTCs);
- Enhancing the quality of teacher education through Internet connectivity; and
- Establishing Internet Points of Presence (POPs) in four rural towns to avail affordable Internet access to the local business communities.

In Uganda, the Connect-ED activity has made components of the primary teachers' teaching curriculum more available and accessible, especially to rural teachers. It is anticipated that the delivery of primary teacher education in Uganda will be made more cost effective, through less dependence on textbooks, which if available are in short supply and out dated.

On March 25, 2000, the USAID Mission contracted AED to implement the Connect-ED activity. The primary objective of the activity was to enrich primary education through the use of new information technologies in the education system. This included development of an online curriculum for student teachers, establishing computer laboratories and Internet connectivity, and providing computer skills training to students and tutors in the Faculty of Education at KYU. At the same time, two other US firms, namely: Computer Frontiers Inc. and WorldLearning began work to establish computer laboratories, and internet connectivity to four Primary Teacher Colleges (PTCs) around the country, and to train tutors on the use of technology in teacher training.

On April 09, 2001, the Task Order was modified to award AED full responsibility to manage the whole activity, and to enable its expansion to include four additional PTCs. Two other Task Order modifications were made on March 13, 2003, and June 27, 2003 to extend AED's contract to June 30, 2003 and September 30, 2003, respectively.

Below are the highlights of the last quarter (January – March 2004).

2.0 RESULT # 1 AND 2: OPERATING GUIDELINES AND BUSINESS PLANS

By the end of Connect-ED Phase II, it is anticipated that each of the eight PTCs will have established ICT policy and operating guidelines as well as reach full financial sustainability while maintaining a realistic balance between teacher training support and sustainability.

During the past quarter, the policy/sustainability consultant (Meddie Mayanja) was identified and hired. The consultant met with the team at Kyambogo where they held discussions and shared all the available information and reports from the groundwork done by the previous consultant David Ongom. The consultant (Meddie Mayanja) reviewed all the available information and reports. He worked on the consultancy proposal and work plan, planning for Kick-off workshop due in Jinja in April, met with Vice Chancellor, Kyambogo University (KyU), met with Ms. Mayanja Sarah, Education Specialist - USAID Kampala, attended the the KyU ICT Policy development meeting, met with the National ICT officer at the Uganda National Council for Science and Technology and also met with some MOES officials.

In addition, the consultant visited six out of the eight PTCs and held preliminary meetings with Principals, Deputy Principals, tutors and Project Technical Assistants. He discussed the upcoming workshop, sustainability planning and operating guidelines for ICTs in the PTCs. They shared views on approaches to mainstream ICT in PTCs in the Ministry of Education's programs. He held discussions and made consultations and sustainability discussions with stakeholders at Bushenyi, Ndegeya, Lira, Soroti, Mukuju and Gulu PTCs.

Planning for a workshop (Connect-ED II Kick off Workshop) to take place on 14th – 16th April 2004 at Hotel Triangle Annex- Jinja was done. The workshop program was finalized and the invitations were sent to the delegates. The invitations were sent out through Kyambogo University Vice Chancellor's office. Some of the delegates have confirmed their attendance and preparations for the workshop are in their final stages.

2.0 RESULT #3: KYU IT STRATEGY

By the end of Connect-ED Phase II, KYU will have a well-articulated IT strategy for long and short-term implementation. Like Result #1 and #2, this result will involve identifying and hiring an IT strategist with knowledge of Makerere University IT strategic planning process.

During the past quarter, an IT Strategist (Apollo Kyenune) was identified and hired. The Strategist met with the team at Kyambogo where they held discussions on the best direction to take. The IT Strategist prepared and disseminated the inception report detailing his work plan and methodology.

He conducted a sensitization and awareness seminar (special senate meeting) with a core group of thirty key people in the University (Vice chancellor, Deputy Vice Chancellor, University Secretary, Bursar, Deans and directors, Heads of Department, Student representatives). The meeting was aimed at creating real awareness and to recognize mindset problems, identifying operational constraints, fully identifying external stakeholders of KyU and establishing a commonality of direction in formulating the ICT Strategic Plan. The seminar was a half-day seminar that took place in the University's Boardroom. Members present at the seminar completed questionnaires and the report will be ready on or about 15th April 2004.

During the past quarter, the IT Strategist also held several meetings with the Kyambogo University ICT committee who are spear heading the University in developing the ICT

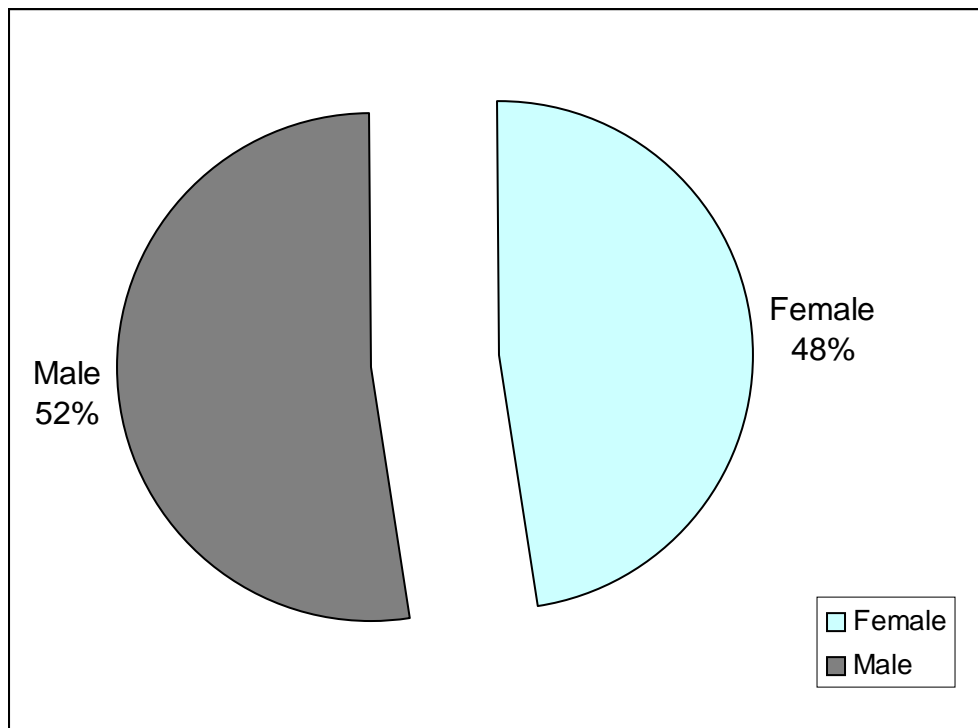
3.0 RESULT # 4: CONTINUING TRAINING KYU AND PTC STAFF IN THE USE OF TECHNOLOGY

Aside from continuing training of tutors, students and other educators at the PTCs as was the case in Phase I, result #4 also requires training tutors and other educators to use technology to increase student centered learning. This will involve champion teachers taking Harvard University's "Teaching to Standards with new Technologies" distance education course. This activity has not taken place yet but teachers and other educators have continued to undergo training in using technology.

The training covers the following modules:

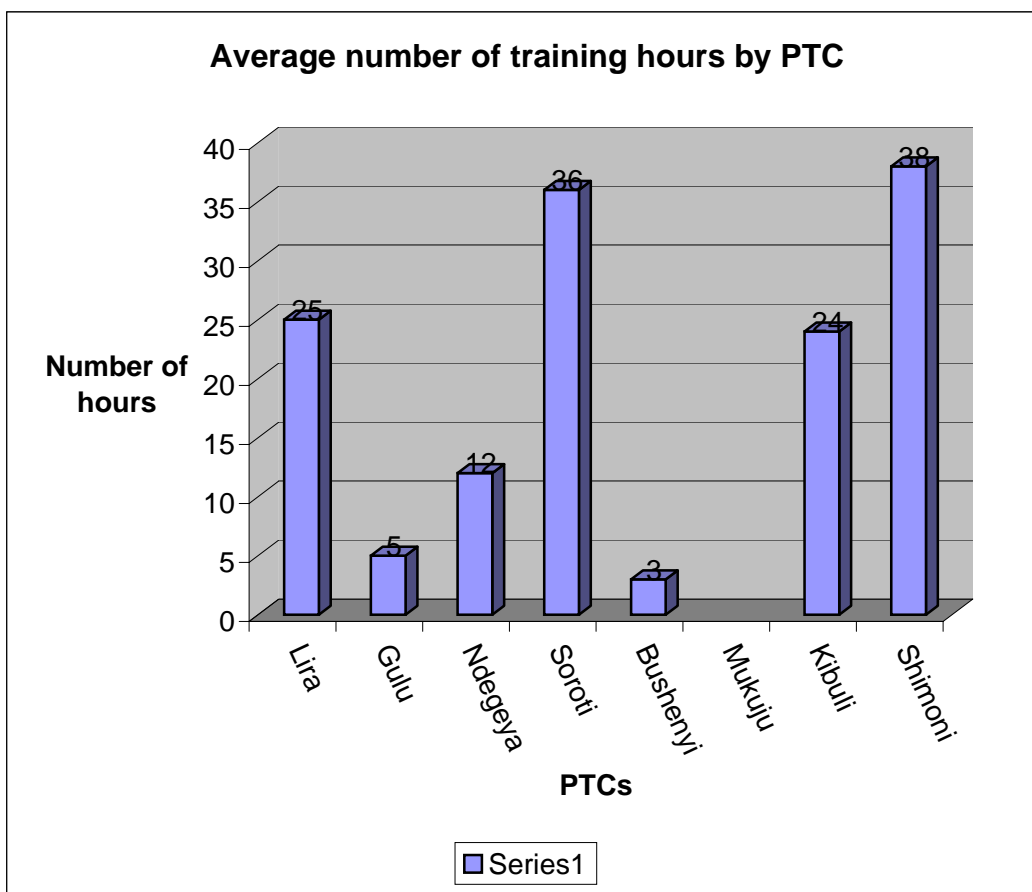
- Introduction to computer basics (Sessions I to V) – 10hrs (each session is two hours)
- Microsoft Word – 8hrs
- Using the Internet: This covers the use of the Professional Development Learning Environment, Online curriculum & the Digital Resource Libraries (DRLs) all developed by the project. It also covers use of search engines, use of collaboration tools and use of email for communication. It takes 8hrs
- Ms Excel – 6hrs
- Ms PowerPoint and use of technology to create transparencies for overhead projectors – 6hrs
- Inspiration – 4hrs
- Website designing – 4hrs (this module is for counterpart tutors)

During this quarter, the total number of trainees from all the PTCs was 816. This quarter also saw an increase the number of trained females from 35% last quarter to 48% this quarter. The graph below shows the distribution of training numbers at each PTC by gender.



3.1 Training Students and Tutors At PTCs

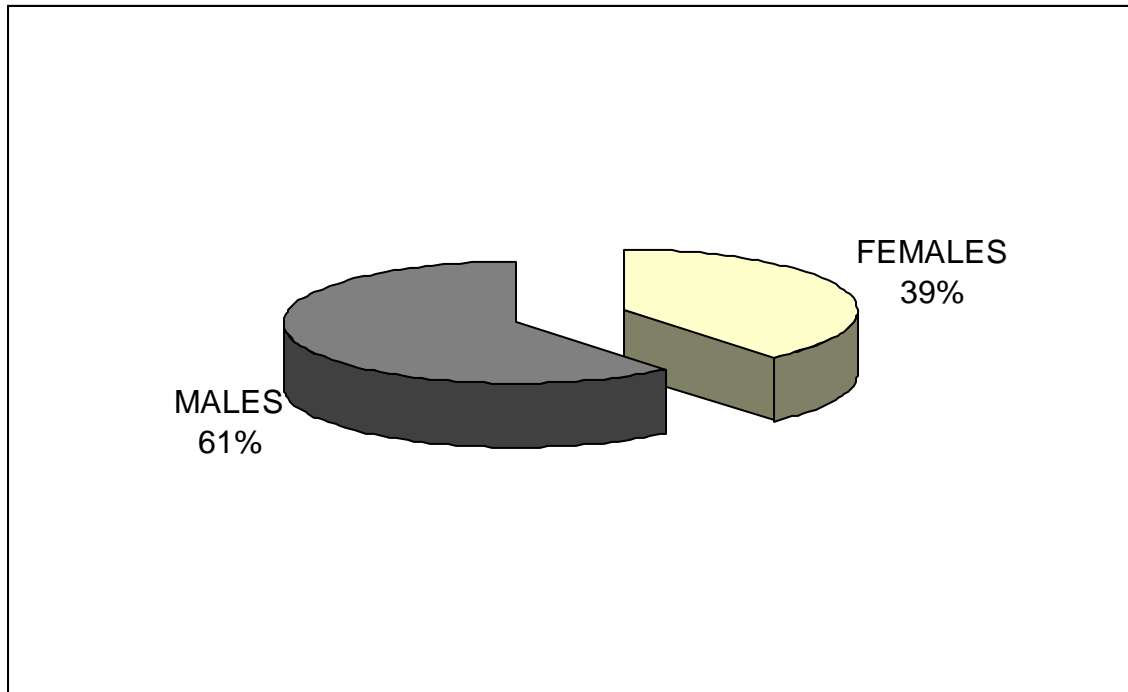
Training continued to take place at the colleges in the use of technology for improved teacher training. Training took place at all PTCs. The training targeted students, tutors and CCTs at each of the six colleges. The training is structured to follow the Professional Development Learning Environment (PDLE) with each trainee covering a minimum of 40hours of facilitated training and the trainees have access to the lab to practice during their spare time. Out of the stipulated 40 hrs of training, the graph below shows the average number of training hours per trainees in each of the colleges.



While the computer to trainee ratio at Canon Lawrence, Soroti, Mukuju and Shimoni was 1 to 1, the number of trainees per computer was two in Gulu, Ndegeya, Bushenyi and Kibuli. The table below shows the training modules covered by each center.

3.2 Training at Kyambogo University

During this quarter, Connect-ED continued to provide computer skills training to Kyambogo University staff and students who are pursuing the Bachelor of Education. This group of students is targeted because they end up working as tutors in PTCs and teachers in primary schools. A total of 50 people were trained (including students and university staff) with 39% of them female and 61% male as shown in the chart



4.0 RESULT # 5: INCREASED CAPACITY OF TUTORS AND PRE-SERVICE TEACHERS TO DESIGN AND DEVELOP EDUCATIONAL RESOURCES AND CONTRIBUTE TO ONLINE VERSIONS OF THE TRAINING CURRICULUM

Within this result, tutors, CCTs and students at PTCs will have further capacity to create educational resources using computer and Internet technology and contribute to the development of the online curriculum. This will involve activities such as the documentation of content creation process and demonstration of educational resources from each of the 8 PTCs.

During the past quarter, two workshops were held (one workshop at Kibuli PTC and the other at Shimoni PTC) to develop capacity to create online curriculum materials and other educational resources. The content team (David Kawumi, Enos Semanda, Phoebe Kyomukama) worked with some teachers from Kibuli and Shimoni PTC who have developing content to contribute to the online versions of the curriculum.

During the workshops, the tutors discussed the role of a PTC in curriculum Development; they followed up on content collection as discussed in the September workshop at KYU, they discussed the types of materials to collect, reviewed sample enhanced units which are already online and each tutor studied a unit from their subject. During the workshop, the group identified the enhancement required and the facilitators demonstrated to the tutors the following: -

- Making records in the content tracking sheet
- Ways of collecting images for the Units
- Developing text for extra reading.
- Designing /developing quizzes for the units.
- Designing /developing activities for the units
- Collecting, reviewing and annotating online resources
- Put together all the content worked on above for further review by the Educators
- Sharing individual assignments for future content development

Some tutors from the PTCs have contributed to the online version of the curriculum. They include: -

- Jacquelyn Nshemerweirwe (Kibuli PTC)
- Mayanja Aloysius (Gulu PTC)
- Ssewanyana Teopista (Kibuli PTC)
- Naziwa Robinah (Ndegeya PTC)
- Alloch William Akol (Soroti PTC)
- Tadeo Wallance (Gulu PTC)

As earlier planned, during the same workshops, training would take place for the development of other educational resources. Experience shows that this would not be possible since the workshops for content creation are aimed at something different. Instead, this training will be tagged to support supervision and carried out during the visit at each PTC. The first draft of the training manual for development of educational websites was developed by the technical

assistant in charge (Hawa Nyende) and was distributed to the PTCs for testing.

5.0 RESULT # 6: FULLY DESIGNED PTC WEBSITES WITH A MAINTENANCE STRATEGY

This result involves training PTAs and counterpart to create websites and identify a content committee at each PTC which will be responsible for providing content updates to the website while the PTAs act as web masters. The ICT Committee and the Webmaster would be training in website development and maintenance. The training manual was completed and it covers training in development and maintenance of educational websites for teachers as well as the PTC websites. The training manual is being tested by PTAs in Shimoni, Kibuli, Canon Lawrence and Gulu PTCs.

6.0 RESULT # 7: DEVELOPMENT OF MORE ONLINE CURRICULUM UNITS

One of Connect-ED's primary objectives was to enrich primary education through the use of new information technologies in the education system, which included development of an online curriculum for student teachers. The implementation of this result involves review and further development of content from tutors during the mini workshops in result #4 by the content team before the technical team enhances it. The chart below shows the status of the online units developed so far.

SUBJECT AREA	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11	Unit 12	Unit 13	Unit 14	Unit 15	Unit 16	Unit 17	Unit 18	Unit 19	Unit 20	Unit 21	Unit 22	Unit 23	Unit 24	Unit 25
Math	X	X	X																						
Social Studies	X	X						X					X												
Cultural Education		X											X												
Foundations of Education	X	X		X																					
Science with Health	X			X								X													
Language	X	X	X						X																
LEGEND																									
completed & uploaded		X																							

7.1 EQUIPMENT STATUS

Most of the equipment is in good working order at all the centers except for a few cases. The table below summarizes the equipment faults and the actions as they happened at the different centers in this quarter.

Center	Equipment Problems and actions
Bushenyi	<ul style="list-style-type: none">– The LCD Projector is malfunctioning due to a blown lamp and one of the electric circuits it is under repair at Bushnet.– One of the monitors is not functioning and was taken to Bushnet for repair under the service level agreement to fix broken parts.
Kyambogo	<p>Computer No 8 still has a defect of failing to boot up. It occasionally brings up a message “please insert system disk.” Computer Numbers 3, 4, 8, 12, 17 and 20 could not log onto the network. While this was sorted out on Comps 4, 8 and 17, the rest were yet to be rectified.</p> <p>Many of the UPSs either failed to power on or collapsed occasionally.</p>
Mukuju	<p>All the equipment is in proper working order apart from the print server, which no longer works. That is, the light no longer shows and printing through it is not possible.</p>
Kibuli	<ul style="list-style-type: none">- Air Conditioners: One of the air conditioners is leaking- Computers: Five (5) computers are still running on low Ram. The RAM upgrade initially specified for these computers was not compatible. The computers process at a low speed and sometimes end up hanging while is working.- Fire Extinguishers: The date for servicing these computers is long over due. The next servicing date as indicated on the gargets is February 2003 and the year is almost ending with no servicing done.- Harman Kordon speakers: This pair of speakers is not functional.

7.1 TRAVEL AND SHORT TERM TECHNICAL ASSISTANTS

During this quarter, two short-term technical assistants were employed as shown in the table below.

Name:	Purpose and destination
Meddie Mayanja	Sustainability, business planning and ICT operating guidelines for PTCs as in Results 1 and 2.
Apollo Kyeyune	IT Strategy for KYU
Cissy Segujja and Meddie Mayanja	To Bushenyi and Ndegeya PTCs to consult with PTC partners as part of the planning process for the April workshop, assess the various steps being planned or implemented towards sustainability.
Hawa Nyende and Meddie Mayanja	To Soroti, Mukuju, Lira and Gulu PTCs to consult with PTC partners as part of the planning process for the April workshop, assess the various steps being planned or implemented towards sustainability.

8.0 SUCCESS STORIES

Oketcho Godfrey Haya, pre-service tutor (Language and SST), Canon Lawrence P.T.C. Boroboro.

“Since the introduction of Computer services in our College, my life has greatly changed in many aspects. I’m now able to type my work, save and print using the computer. This technology has enabled me to work on books (pamphlets) that I provide to students at a low cost. Some of the pamphlets I have written include

- *“English Language Teaching Based on Questions and Answers For Student Teachers”*
- *“General methods For Student Teachers”*
- *“Sample Questions in Social Studies for Grade 111 Student Teachers”*

Before Connect-ED, I was typing my books manually using a typewriter, which made my work look substandard work since there was no room for making corrections. I am now able to produce standard materials that I give to my students to supplement the learnt work in the classroom which has greatly improved the performance of students at final examinations in the subjects I teach i.e. Language Education and Social Studies.

Furthermore, as a College Child –to –child coordinator, I have been able to get information from the National coordination Unit Headquarters (Kyambogo University) and vice-versa without necessarily traveling to Kampala, through use of e-mail services.

Through the Global Learning Portal (GLPNet), I have been able to interact with people from far and near through exchanging academic views on matters concerning contemporary issue like HIV/AIDS, Girl child education and Language and culture.”

Okello Johnson, teacher (Maths & Science), Canon Lawrence Demonstration Primary School

The knowledge of computer has changed and improved greatly my life style and way of doing things. The technology has made it easier and faster for me to do my classroom work, I am able to make my lesson plans, scheme of works, make time tables, type notices and letters using this computers. It made me communication easy with use of e-mail and other collaborative tools at a low cost.

I use the computer to make teaching learning aids and take part in online discussions using GLPNet.

Before Connect-ED, I used to read so many books when doing my research. I would gather very many books and look through all of them before getting the needed information. With the Internet, I gather all the information quickly without reading through many books.

Before Connect-ED, I used to write a lot on the black board as the materials then were only chalk and blackboard, but now I type my notes and distribute them to the pupils.

Wasswa Hannington, student, Ndegeya PTC

“My first exposure to computers started here and Ndegeya PTC, with connect-ED Project. When I was outside the college, People had talked about computers but I had no idea what they were and how they worked. I attended computer classes and was also introduced to the Internet. On top of preparing documents in MS Word, I can also search information on the Internet and also communicate using email.”

Ssekabiito Florence, student, Ndegeya PTC

“With Computers, I have learnt many things which I did not know e.g. using the Internet, preparing, storing and printing documents. In case I am posted to a school with a computer, I can be used as a resource person for those who do not know.”

Joseph Kamushaga, Tutor, Bushenyi PTC

The Internet has brought university library material close to my eyes and I have since discovered wonderful knowledge the world has in huge deposits lying awaiting extraction. My lessons are increasingly becoming richer in content and quality as a result of using the Connect-ED lab. I have watched with interest the enthusiasm of my students as they throng the doorway to the lab to use computers in turns.

Acema Charles, Tutor, Bushenyi PTC

Before Connect-ED, while teaching I only used the printed materials from the few textbooks, which are available at the college. The questions for discussions were read out to the students who in turn wrote them down in their exercise books, after which they would go and discuss them while I gave them support where necessary. At times the questions were put on chalkboard for the students to work in their groups. To my dismay the students tried to do all the questions, which are on the chalkboard, though instructions indicated otherwise. With the blessing of an ICT center at the Bushenyi Primary Teachers' College, I have toured the world

for knowledge. The ICT has enabled me to develop academically and improve my teaching. At least now I teach with authority and possibly more knowledge than the students.

Aloyzius Mayanja, Tutor, Gulu PTC

My story, is no more than telling how I have developed my computer skills from, 'not knowing how to Double Click', to being able to command the Internet to search, download, save Information, organize my Ideas, organize my session notes, and connect to people through online discussions the GLPNet and using the knowledge in my teaching practices.

Up to 2001, teaching had become a very tiresome and boring exercise. Having to collect lesson notes from lots of very old Library text books, in competition with the students; having to teach using un updated information for over five years; having to draw session charts and illustrations manually; having to lecture by shouting to our large classes; having to give written activity to over 100 students, expected to mark that activity before the next session! To the worst of it, I was feeding my students on expired Information, from the old textbooks in the Library. With the coming of Internet to Gulu PTC, all the content I give to my students, I get from the Internet and from the On-line Curriculum on the Internet. Through the GLPNet, am able to solve educational problems by use of the community tool.

Just recently, I gave my first year students a group activity, to write the following numbers in two significant figures; (a) 35800 (b) 0.0536 (c.) 0.005. The groups sent their Secretaries to the few computers to search and download the relevant information to help them in their group discussion. They did and when class reconvened for group reporting, almost 60% of the groups had got the task correct. My part was only to give a little guidance and not to lecture.

One other area, in which the Internet has eased my work, is in the evaluation of students' knowledge. As they search for content on the Internet, there is an inbuilt activity, together with a marking guide for it. The students download that activity, take it to their groups for discussion, do it, and mark themselves, keeping a record of their scores, copy to their subject tutor(myself).

Shimoni pre-service teachers integrate of ICT in Teaching

There two counter parts at Shimoni PTC Mr. Elizabeth Kasirye and Ms. Annet Mugisha who have taken up the use of technology to easy their work serious.

During teaching practice, most tutors go out to supervise leaving all first years with two tutors to teach them. The total number of first years is 196 the challenge now was how could two tutors occupy them. So these two came up with an idea of using technology, the LCD projector. So each one prepared her content in PowerPoint with a little assistance. Then all the 196 were gathered in the dining hall and the tutor delivered her lesson. First it was Mrs. Elizabeth Kasirye, her delivery was from the *Digital Curriculum* subject, *Language Education*. Then secondly Ms. Annet Mugisha came still on same subject. Both deliveries were successful the students said, because it was new method and approach. The students were excited about the technology and how their tutors could use them so they paid attention through out.



Annet Mugisha delivering her lesson to 196 1st years in the dining hall